DRINKING WATER PROGRAM

February 12, 2018

IN THIS ISSUE

United States Environmental Protection Agency—Region 8

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DRINKING WATER PROGRAM

STAFFING CHANGES IN EPA REGION 8'S DRINKING WATER PROGRAM

New Drinking Water Manager in EPA Region 8. We are pleased to welcome Angelique Diaz into the drinking water program as the new Drinking Water Unit B Manager. Angelique has been with EPA since 2008, working first in the Air Program on the regulation of radioactive emissions and mostly recently as the energy sector lead in the NEPA program. Angelique is a licensed P.E., has a Ph.D. and M.S. in Environmental Science and Engineering (focusing on radiochemistry as well as water and waste water treatment) and a B.S. in Chemical Engineering, all from the Colorado School of Mines. In her new position, she will focus on tribal systems, Lead and Copper Rule, Radionuclides Rule, Surface Water Treatment Rule, and inventory/data systems. If you need to reach Angelique, you may call her at 303-312-6344 or email diaz.angelique@epa.gov.

On November 30th, 2017, Mindy Mohr retired as the Drinking Water Tribal Liaison. Mindy served as a dedicated EPA employee for 30 years, 20 of those years with R8's Drinking Water Program. Mindy's experience, dedication, and work ethic will be sorely missed by all those who worked with her. Mindy's shoes are now being filled by Nate Delano. Nate has a Master's Degree in Water Policy and GIS, began his EPA career with the Clean Water Act program, and has worked for the last six months on the Lead and Copper Rule. Happy trails, Mindy, and welcome, Nate!

Please see the revised contact list on Region 8's WaterOps website for a full run-down on our staff.

DRINKING WATER WATCH CHANGES

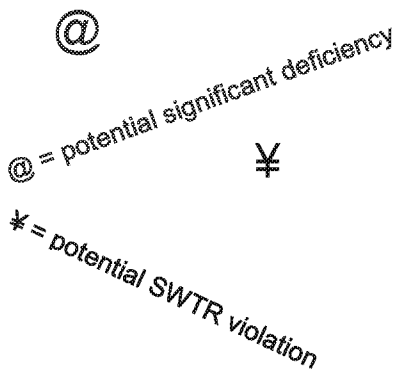
There is good news and bad news about changes to Drinking Water Watch.

The bad news is:

- The last week of December, we had to decommission the registration components of DWW because of internal security changes.
- No new DWW users will be able to register after 01/01/2018.
- We are uncertain what all of the repercussions will be at this time; we have to wait and see.

The good news includes:

- Currently registered users will still be able to logon to DWW as before.
- Passwords may or may not expire (we are uncertain at this time).
- If passwords expire, we have no way of resetting them.
- Our current plan is to keep the existing DWW up and running (to the degree possible) for as long as possible.
- Most importantly, the public version of DWW (DWWPUB) at: https://sdwisr8.epa.gov/Region8DWWPUB/default.jsp will soon have most of the information that the password protected DWW has, except sanitary survey reports.
- As far as we know, we will still be able to send monthly Sampling Reminders.
- The process of opting in/out of receiving monthly reminders will need to change because that process was handled through the registration version of DWW. This will become a manual (on request) process, when necessary



Here's what you can do to prepare for your sanitary survey to make the process go **smoother, faster and result in fewer significant deficiencies.**

Review your system's **previous sanitary survey report** (surveys for Community systems are conducted every 3 years, Non Community systems – every 5 years).

Review the **current year sanitary survey report** form, attached to the email notification from the EPA Region 8 saying that your system is due for a **survey** this year.

You should see this email in February or March. Collect updated contact information or your facility (mailing address, phone number email address). Collect information on the number of people served by the water system: residential/ transient, and the number of service connections (metered, unmetered).

Does your water system have a **certified operator**? (Required only for Community or Non-Transient Non-Community systems).

If your system **purchases water** what is the name of the system that supplies your water, and its PWSID number? (**Who maintains the connection** between the two systems?)

If your system **sells water** to other systems what are their names and PWSID numbers? (**Who maintains the connection(s)** between the systems?)

If your system has **wells,** are the well caps **sealed** (check the compression seal, gasket or o ring, and look for missing bolts or a disconnected conduit). Is there a **source water tap**?

If your system has a **spring source**, do you have **construction drawings**, as-built drawings, or photographs documenting the spring construction? Does the water enter the spring box through a **perforated pipe**? At what depth? Is the hatch sealed with a gasket? Do vents and overflows have (#24 mesh) screens?

Review the sections of the **current year sanitary survey report form** that apply to your water system and identify any potential **significant deficiencies** seen in red text on the report form and identified by an @ symbol that you may need to address. If yours is a surface water system, also address the issues, prior to the survey, identified in blue and by a ¥ symbol on the survey report. Call the EPA if you have any questions about any potential significant deficiencies or violations before you make any changes.

For water systems that have **above-ground storage tanks** (ground level or elevated), EPA doesn't require its surveyors to climb storage tanks. We do not provide the necessary safety training nor safety equipment.

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Be proactive and review the "**Storage Tank - Above Ground Rooftop Component Checklist for Finished Water Tanks**" at www.epa.gov/region8-waterops (click on Reporting Forms, click on Sanitary Surveys) and inspect each of your storage tanks' components prior to the survey. For each question on the checklist please provide photos illustrating heights, screen mesh size, etc. for each feature, and include the **storage tank** name and the **facility ID** specified on your water system's schematic (e.g. **ST01**).

Each storage tank should be cleaned every 3 to 5 years. However, if it has been more than 10 years this will be identified as a significant deficiency and you will be asked to provide a "**Finished Water Storage Tank Inspection/Cleaning Checklist**" completed by either the water system staff or a tank cleaning contractor. If you wish to take care of this prior to the survey, you may obtain a copy of the checklist at www.epa.gov/region8-waterops (click on Reporting Forms, click on Sanitary Surveys) and document information for each of your system's storage tanks that are due for cleaning prior to the survey. The questions on this checklist are the same as on the "Rooftop Component Checklist" above, in addition to questions about the tank overflow, tank drain and what was found during the cleaning. Again, photographic documentation is required along with the answers to each question on the checklist

Be sure that you have updated sampling plans available for:

- Revised Total Coliform Rule (RTCR) sampling locations.

Many Community and Non-Transient systems should have updated monitoring plans for:

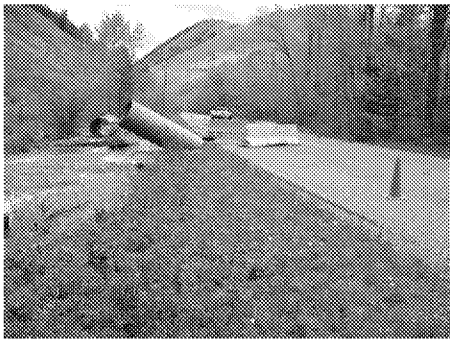
- Disinfection Byproduct Rule monitoring locations and
- Lead and Copper Rule sampling sites.

Prior to the survey, visit all of the locations the surveyor will visit and make sure you have access to all of the facilities:

- Obtain land owners' permission for you and the surveyor when traveling on or across private property.
- Make sure there are no rodents encamped on or around well heads, pumps, sample taps, etc.
- Make sure backflow prevention devices have been tested within the last year.

If you have any questions, need a survey report or report form, contact Jim Gindelberger, 303-312-6984, gindelberger.jim@epa.gov.

HOW DO YOU KNOW YOU ARE PREPARED FOR A WATER EMERGENCY DISASTER



Knowing that no one ever wants to have an emergency disaster affect a water system, all public water systems should prepare as much as possible BEFORE a disaster strikes. With extreme and unpredictable weather affecting all parts of Wyoming, the first step is to dust off and update your emergency response plan. With the turnover of personnel at some water systems, it is highly recommended that you review the plan at least once a year. An updated plan will reduce the work and stress that occurs when an emergency occurs. Please take a look at the Region 8 Water Operations webpage for guides and templates, and use or modify the template that will work best for your system. See the templates at: https://www.epa.gov/region8-waterops/reporting-forms-and-instructions-reporting-forms#erp

The Region 8 Drinking Water Program offers occasional water emergency preparedness workshops. With local, state and federal stakeholders at these workshops, this is a great way for all types of water systems to become familiar with the process of responding to an emergency incident and establishing critical partnerships before a situation occurs. As part of the workshop, the participants are presented with a scenario and all stakeholders then walk through the process of responding to each stage of the disaster. Past workshops show that it's enlightening to consider all the duties needed to respond to an emergency, and it's fun to work through the incident with other water system personnel and agencies outside of the emergency situation.

Remember, if you have an incident that disrupts your water supply or poses potential contamination you must call one of the EPA staff as soon as possible. If there is a drinking water emergency and the EPA office is closed, please call 303-293-1788 for assistance, and let the operator know that you represent a public water system that is regulated by EPA Region 8. As the primacy agency, the EPA may be able to assist you with additional resources.

The national EPA Drinking Water and Wastewater Resilience website includes more hands-on information on how a water system can assess its facilities, and plan and train for specific disaster situations. The free Water Utility Response On-the-Go app is an excellent tool that can be downloaded on your computer, phone or tablet. The app will allow water system personnel to:

- Identify and contact emergency response partners
- Monitor local and national severe weather
-
- Review and complete incident-specific checklists
- Fill in, save and email damage assessment forms with photo attachments
- Access Incident Command System procedures and resources

Instructions on how to use the Water Utility Response On-the-Go app can be found on this website. https://www.epa.gov/waterutilityresponse/water-utility-response-go-mobile-application-and-website.

Please consider all these options as resources and guides to be the best prepared water system possible. A plan of action and knowing your system's operation will help you properly react in a limited time. Please take a look at the EPA Emergencies and Security webpage for further resources. If you would like to speak to someone directly for further assistance, please contact Kyle St. Clair at 303-312-6791 or stclair.kyle@epa.gov.

HOW TO SUBMIT SAMPLE RESULTS AND OTHER COMPLIANCE DOCUMENTATION TO THE EPA REGION 8

All compliance documentation (monitoring results, significant deficiency corrections, etc.) should be submitted to the EPA Region 8 office through the R8DWU@epa.gov (R8DWU) e-mail portal. Documentation that is sent to R8DWU, following the rules described below, is instantaneously distributed via an automated process to the appropriate EPA staff. Use of R8DWU helps to ensure your documentation is handled in a timely manner, independent of staff schedules or changes. It also simplifies the documentation submittal process by providing you with a single e-mail address to use for all compliance reporting.

R8DWU E-mail Rules:

1. Include your PWS ID# in the subject line of the e-mail.
2. Include the correct keyword or abbreviation for the documentation being submitted in the subject line of the e-mail (see the table below).
3. More than one type of documentation can be submitted in the same e-mail as long as the subject line of the e-mail contains the correct keyword or abbreviation for each type of document being submitted. Each keyword should be separated by a comma. For example, if an e-mail contains both nitrates, inorganic compounds (IOC), volatile organic compounds (VOC), and synthetic organic compounds (SOC) results; the e-mail subject should be: "WY5600000 NO_3, IOC, VOC, SOC".
4. Do not copy any EPA staff on the e-mail.

If the above rules are not followed, you risk your documentation being mishandled and not received by the appropriate EPA Region 8 staff. For example, if Rule 3 above is not followed, the results will not be distributed to the correct group of people. If you copy EPA staff on the e-mail to R8DWU, these individuals will receive the e-mail from you directly and will also receive a forwarded copy of the e-mail from R8DWU. This creates confusion and unnecessary duplication.

Please follow the above rules to help us make this process work for us and for you!

A table with the appropriate keyword or abbreviation to use for each type of documentation is included below for your reference.

R8DWU Documentation Submittal Keyword List		
Type of Documentation	**Required Keywords**	**Example E-mail Subject**
Consumer Confidence Report (CCR)	"CCR" or "Water Quality Report"	WY5600000 CCR
Disinfection Byproduct (DBP) Results (TTHM or HAA_5)	"DBP" or "TTHM" or "HAA_5"	WY5600000 DBP
DBP Precursor Results (Total Organic Carbon and/or alkalinity and/or UV absorbance)	"TOC" or "TOCA" or "Precursor" or "SUVA"	WY5600000 TOC
DBP Operation Evaluation Level (OEL) Report	"OEL"	WY5600000 OEL
Inorganic Compounds (IOC), including asbestos and/or Synthetic Organic Compounds (SOC) and/or Volatile Organic Compounds (VOC) Results	"IOC" or "SOC" or "VOC"	WY5600000 IOC or WY5600000 IOC, SOC, VOC
Lead and Copper Rule (LCR) Results (including Water Quality Parameters results)	"LCR" or "Lead" or "Copper" or "Pb/Cu"	WY5600000 LCR
LCR Sample Plan	"LCR Sample Plan" or "LCR Plan"	WY5600000 LCR Sample Plan
LT2 Source Water Monitoring Results (E. Coli or Cryptosporidium)	"LT2" or "Crypto"	WY5600000 LT2
Maximum Residual Disinfectant Level Report (MRDL)	"MRDL"	WY5600000 MRDL
Nitrate or Nitrite Results	"Nitrate" or "Nitrite" or "No3" or "No2" or "N+N" or "N-N"	WY5600000 NO3
Radionuclides Results	"RADS" or "Radionuclide"	WY5600000 RADS
Revised Total Coliform Rule (RTCR) Results - Wyoming	"Wyoming BACT" or "WY BACT" or BACT WY" or Wyoming RTCR" or WY RTCR" or "RTCR WY"	WY5600000 WY BACT
RTCR Level 1 or Level 2 Assessment	"Level 1 Assessment" or "Level 2 Assessment" or "RTCR Assessment"	WY5600000 Level 1 Assessment
RTCR Seasonal Start-up Checklist	"Seasonal" or "Start-up"	WY5600000 Seasonal Start-up
Significant Deficiency Correction Notice	"Significant" or "Deficiency" or "Deficiencies"	WY5600000 Significant Deficiency
Surface Water Treatment Rule (SWTR) Monthly Operating Report	"SWTR" or "LT1"	WY5600000 SWTR
System Changes (Contacts changes, change form, or basic information form) - Wyoming	"Wyoming Change" or "WY Change" or "WY INV Change"	WY5600000 WY Inv Change
Example subject for an e-mail that contains nitrates, IOC, SOC, VOC and Rads results: "WY5600000 NO3, IOC, SOC, VOC, Rads"		

Region 8 directly audits and certifies the primary state laboratories in Colorado, Montana, North Dakota, Utah and South Dakota. Additionally, the following Wyoming laboratories are certified by EPA Region 8 either directly through on-site evaluations or via reciprocity with the National Environmental Laboratory Accreditation Program (NELAP):

- Cheyenne Board of Public Utilities Laboratory
- Energy Laboratory in Gillette
- Energy Laboratory in Casper
- Intermountain Laboratory in Sheridan
- Lander Regional Hospital Lab
- Lincoln Water Quality Lab in Afton
- National Park Service Lab in Mammoth Hot Springs (Yellowstone)
- Sweetwater Health Department Lab in Rock Springs
- Teton County Water Lab in Jackson
- Wyoming Department of Agriculture Lab in Laramie
- Wyoming Public Health Lab in Cheyenne
- Zedi US, Inc. lab in Pinedale
- Zedi US, Inc. lab in Riverton

Billings and Helena branches of Energy Laboratories, Inc. are certified by their home state or through The NELAC Institute (TNI). EPA Region 8 recognizes these certifications through reciprocity.

Before a PWS submits its water sample to any lab, particularly any lab that is not listed above, the water system will have to ask the lab about the status of its certification for the particular contaminant(s) that will be tested. If Region 8 receives lab results for drinking water samples from a laboratory that is not certified by EPA or a state for that particular contaminant(s), then we cannot accept the sample results and a monitoring violation will be assigned.

The contaminants that labs are certified for, vary from lab to lab. For example, Wyoming Public Health Lab in Cheyenne is certified for Total Coliform and E Coli testing, but is not certified for nitrate, lead and copper or other chemicals. A table showing the labs listed above and the chemicals for which they are certified is posted on the Region 8 Drinking Water Online website at this link:

(https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water-laboratories). Ultimately, it is the responsibility of each water system to verify that the lab it uses has unexpired certification for the particular contaminant(s) it wants tested.

Good job seasonal systems on your Seasonal Startup Checklists!!!

Where the process was completed correctly, most systems avoided any water quality problems! In 2017, we found that seasonal systems that did not disinfect and flush their water facilities before opening to the public experienced contamination problems during their open season, causing operational disruptions and inconveniencing their visitors. Based on feedback that we heard from you we have tried to make the form easier to complete and added a section at the end for public water systems (PWSs) with multiple water sources.

A Seasonal Water System is one that is operated as a public water system for only part of the year. Even if your system remains pressurized during the off-season while not open to the public, yours is a seasonal system. Every seasonal system MUST complete a Seasonal Startup Checklist and EPA must receive it BEFORE you start serving water to the public (the form is available at https://www.epa.gov/region8-waterops/reporting-forms-and-instructions-reporting-forms#rtcr).

This article discusses some changes to the 2018 Seasonal Startup Checklist based on feedback and experiences from the past year:

- Routine Total Coliform Sampling Requirements
- "Special" Sample Requirement
- Seasonal End Date
- Systems that Remain Pressurized
- One Source and One Distribution System
- Multiple Sources and Multiple Distribution Systems

Routine Total Coliform Sampling Requirements

At least one Routine total coliform sample is required during every calendar month a PWS serves water to the public, even if only for one day during the month. If you write on the Checklist that your PWS closes on September 1, 2018 then EPA will expect a September Routine sample result. Be sure to collect your required Routine sample(s) while the PWS is operating under normal conditions. Don't wait until you have already winterized your distribution system to collect your samples. If samples are collected from locations different from your RTCR Sample Siting Plan (without prior approval) your PWS may be subject to a monitoring violation.

"Special" Sample Requirement

After inspecting your water system, disinfecting the lines, flushing the lines and making any needed corrections at least one pre-season "Special" sample must be collected and submitted to EPA (#7 on the Checklist). This is not your compliance "Routine" sample. The "Special" sample(s) ensures that your PWS is adequately disinfected and flushed BEFORE you serve water to the public. It is required BEFORE you start serving water to the public so that if there are any problems you will have time to address them before the water system opens and you run the risk of making people sick. Suggested pre-season sampling locations are from the source(s) and the most often used public tap(s) in the distribution system.

If you complete the Seasonal Startup Checklist during the same month that your PWS opens to the public, then you are required to collect two sets of samples at different times. Since the purpose of the "Special" sample(s) is to make sure the water system is in order, EPA recommends waiting until your "Special" results come back total coliform negative (TC-) before collecting your required Routine sample(s). You can collect your "Special" sample(s) from location(s) of your choice but your "Routine" samples must be collected from location(s) specified on your RTCR Sample Siting Plan. Be sure to allow enough time in the calendar month to collect both your "Special" and "Routine" samples.

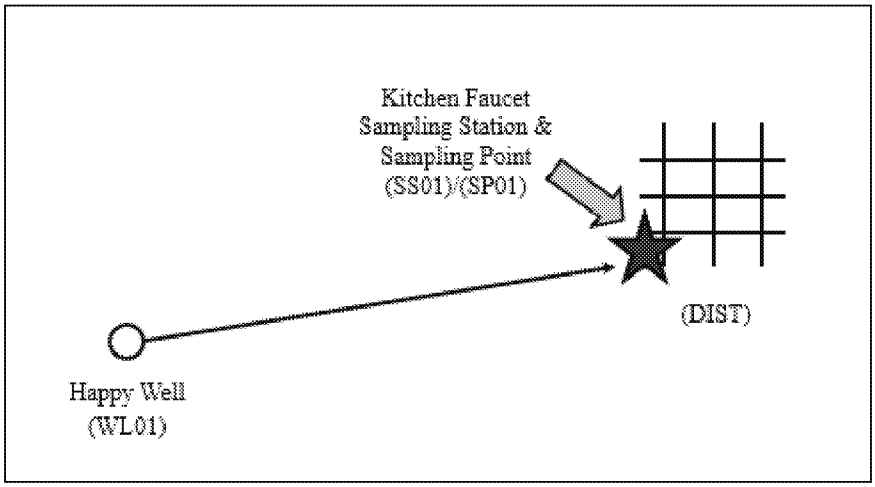
Seasonal End Date

This date will be used as your seasonal shutdown date in the EPA database. If you write that your PWS closes on September 1, 2018 then EPA will expect a September sample result. In August, if you see that you are not getting the September reservations you expected, contact EPA to change the closing date. If you do not inform EPA that the PWS actually closed on August 15, 2018, then your PWS will receive a monitoring violation for September. An email to R8DWU@EPA.gov with your Public Water System ID (PWSID) and "RTCR Seasonal closure" or something similar in the subject line will get routed to the proper EPA staff.

Systems that Remain Pressurized Year-Round

If your water system remains pressurized year-round but your population drops below the required minimum to be considered a PWS you are required to complete a Seasonal Startup Checklist. The Revised Total Coliform Rule section of your Monitoring and Reporting Requirements will plainly state if you are a seasonal system. Even if you would prefer to monitor all year instead of completing the Seasonal Startup Checklist that is not an option. If you think EPA has incorrectly categorized your PWS as a seasonal system you can fill out a Basic Information Form and EPA will re-assess your status (https://www.epa.gov/sites/production/files/2016-09/documents/wyoming_basic_information_form.pdf).

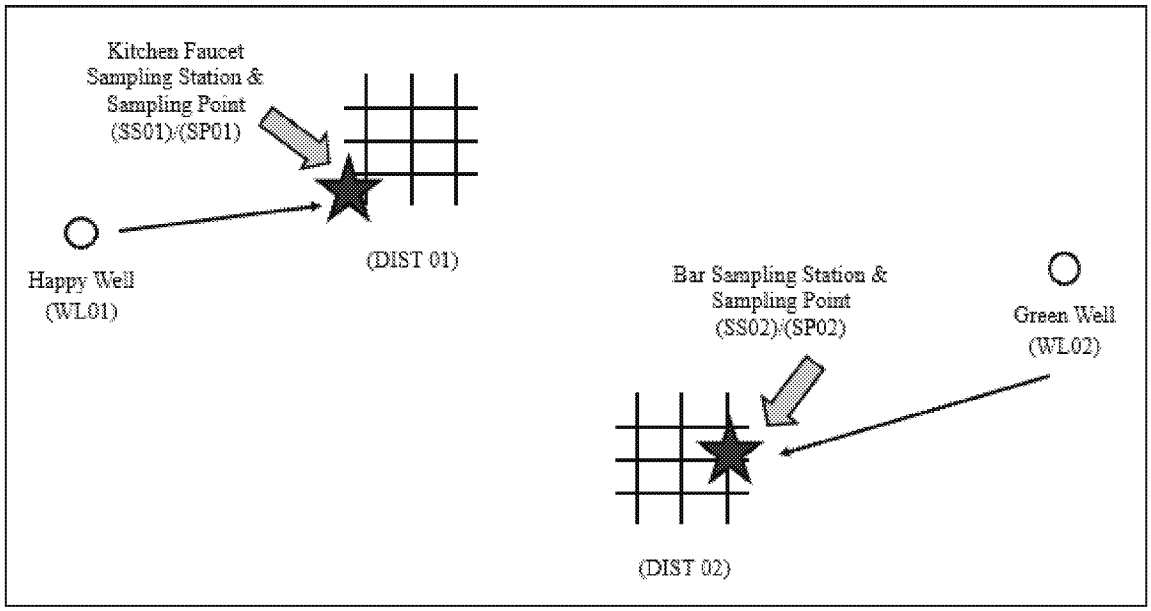
One Source and One Distribution System



Most PWSs have one source that feeds one or more distribution systems. If this is the case for your PWS, then you can disregard the new table at the end of the Seasonal Startup Checklist. The main checklist will suffice for starting up your water system.

(Note: The star and arrow indicating a sampling point is not for total coliform samples. Your total coliform samples must be collected according to your RTCR Sample Siting Plan.)

Multiple Sources and Multiple Distribution Systems



If you operate a seasonal system with separate distribution systems each served by a different water source then please continue reading, EPA has changed the Seasonal Startup Checklist to address these situations. The Seasonal Startup Checklist is due BEFORE serving water from the FIRST well/distribution system that opens for your PWS. If you have 2 wells/distribution systems and one opens in June and the other in July, then the Seasonal Startup Checklist is due to EPA by the end of May. Use the table on the last page of the Checklist to list the individual wells, schedules and what steps you plan on taking prior to serving water to the public from those wells. (Note: The star and arrow indicating a sampling point is not for total coliform samples. Your total coliform samples must be collected according to your RTCR Sample Siting Plan.)

The following is an example of how the table should be filled out:

Well Name (i.e., WL0x)	**Distribution System Name** (i.e., DS0x)	**Planned Startup Activity** (use additional space if necessary)	**Startup Date** (if different than other sources)	**Shutdown Date** (if different than other sources)	**Date Special Sample Collected**
WL01 (Happy Well)	Dist 01	**See the main checklist**	June 14, 2018	Sept 12, 2018	Special samples collected May 15, 2018
WL02 (Green Well)	Dist 02	I will inspect the well and clean the area around it, inspect the hydro-pneumatic tank, change the sediment filter for the season, disinfect and flush the distribution system, and inspect the pipes. I will collect special samples from the well and the bar sink on June 1, 2018.	July 25, 2018	Oct 16, 2018	Will collect June 1, 2018

If you need more information, please contact Jamie Harris at harris.jamie@epa.gov or 303-312-6072.

LEAD AND COPPER RULE (LCR) TAP SAMPLE SITE PLANS

Over the past couple of years, the Region 8 Lead and Copper Team, our technical assistance (TA) partners, and public water systems have worked together to improve LCR Tap Sample Site Plans. As of December 2017, 66% of PWSs in Wyoming and 54% in Indian country have fine-tuned, finalized and submitted their sample plans to us.

Thank you for all of your hard work on these!

If your system has not yet finalized a LCR Tap Sample Site Plan:

- Call the Denver office or your TA provider for assistance in completing one.
- Use resources like the County Assessor's Office and online real estate websites to determine the ages of the sample locations (i.e. www.zillow.com).
- Use the *LCR Tap Sample Site Plan Instructions* located on Drinking Water Online to ensure your sample plan complies with the LCR.
  https://www.epa.gov/region8-waterops/lead-and-copper-tap-sample-site-plan-instructions

Reminder: If your system has submitted a sample plan **you must take your samples from locations that are listed on your plan.** Failure to follow your LCR Tap Sample Site Plan could result in samples being invalidated. If you need to adjust your plan, contact the Denver office. Together we can work towards minimizing exposure to lead and copper from drinking water!

REPORTING CHLORINE RESIDUALS

To report a chlorine residual or not to report a chlorine residual? That is the question that we will clarify here, as well as other issues related to chlorine residual reporting to EPA Region 8. If you operate a community water system (CWS) or a non-transient non-community water system (NTNCWS), you should read the rest of this article. If you manage a transient non-community water system (TNCWS), then please move on and enjoy the other articles in this newsletter.

Under the Code of Federal Regulations (CFR) §141.132 (c)(1)(i), all CWSs and NTNCWSs across the country that add chlorine to the water supply are required to measure the amount of chlorine residual at the same time and location as the total coliform samples collected for compliance. This includes all routine and repeat total coliform samples.

Special total coliform samples are not required to have a measured chlorine residual. We recommend measuring chlorine residuals for special samples, so the operator can have a full understanding of the disinfectant levels when you receive your lab results a couple of days after the sampling event. However, you are not required to report this chlorine residual to EPA.

At the beginning of 2017, EPA required Wyoming and Tribal public water systems to submit a maximum residual disinfectant level (MRDL) Form 2 to EPA Region 8 each quarter. EPA is now calculating the MRDL values for public water systems, and thus the MRDL Form 2 is no longer required. However, in order for us to calculate these values for you, you must submit your chlorine residuals with your total coliform samples.

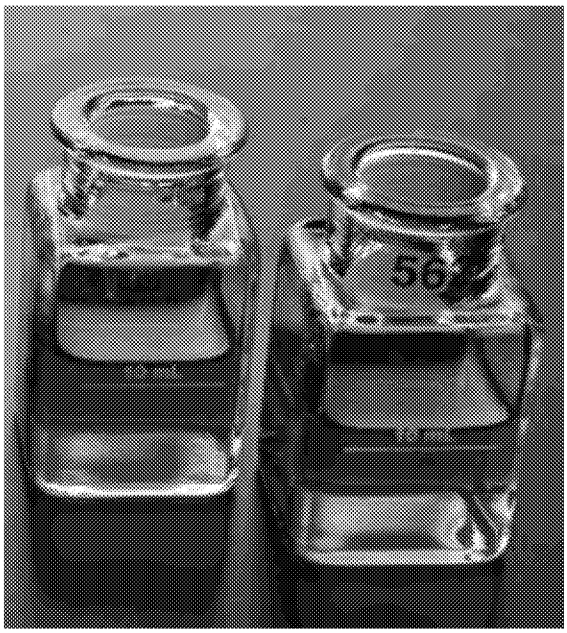
After measuring the chlorine residual, we recommend that you write "Cl2 residual" and the measured value on the lab's chain of custody form for your total coliform sample. When writing the actual number, ensure that it can be read, including the location of the decimal point. To ensure this, we recommend using a zero followed by a period if the value is less than 1.0 (for example, Cl2 residual 0.2).

If your laboratory sends the total coliform results to EPA directly, please have a short tailgate discussion with the lab to ensure that they will include the chlorine residuals with the total coliform results that they report to EPA.

It is the public water system's responsibility to ensure these chlorine residuals are passed along to EPA; therefore, this short conversation may avoid extra work down the road.

In 2018, EPA will be reviewing monthly all of the routine and repeat total coliform samples submitted for compliance to see if chlorine results are being reported. In order to avoid unnecessary backtracking and possible violations, please ensure that your measured chlorine residuals are being passed along to EPA in a proper manner.

For more information, please contact Seth Tourney at tourney.seth@epa.gov or 303-312-6579.



Using best sample collection practices is imperative so that a sample result is truly representative of the water source and not a result of cross contamination with other chemicals. This is especially important when conducting sampling for inorganic and organic chemicals because there are many consumer products in the marketplace that can cross contaminate water samples if one is not careful. It is also important to use best practices for collecting samples so that the highest quality samples can be evaluated by the laboratory.

The following recommended best practices are not comprehensive, but they do help minimize the potential for cross contamination of drinking water samples in the field and ensure quality samples are provided to the laboratory for analyses.

- Make sure you do not handle chemicals before collecting water samples.
- Do not store chemicals like gasoline, pesticides, oils, epoxies, or sealants near the sampling location(s).
- Wash your hands with soap and water before collecting water samples.
- Collect samples in an area free of excessive dust, debris, rain, snow, or other sources of contamination.
- Check with the laboratory on how to collect samples, noting any sample volumes and maximum holding times that are required for analysis.
- Ask the lab how to fill the bottles since this will depend on what is being sampled for and the method used for analysis. Plastic, clear glass, and/or amber glass bottles will be used for chemical sampling.
- The type of cap on the sample bottles will depend upon the chemical being sampled for and the analytical method used by the laboratory. The absence of head space is required for collecting samples in small glass bottles for volatile organic analyses (VOA) because volatile chemicals evaporate into the air. These bottles are commonly referred to as VOA vials.
- If the bottle contains a preservative, do not rinse the bottle.
- Wear gloves and eye protection when handling acids and other preservatives.
- Ship samples to the laboratory as instructed and as soon as they are collected. Delays in shipment may necessitate re-sampling due to sample holding times being exceeded during storage and shipment.
- Complete the chain-of-custody form with all relevant information, including the public water system identification number, water system name, sample collection date, and sample location(s). The sample location should include a facility number and a sample number (e.g. treatment plant sampling point TP01/SP01). This ensures an accurate accounting of where the sampling took place to provide EPA with the information needed to monitor compliance with the Safe Drinking Water Act.

Please contact Kendra Morrison with any questions at (303) 312-6145 or morrison.kendra@epa.gov.

The way you label your water samples tells EPA a lot about the sample, whether you mean it to or not. It also determines whether your sample results will be credited to your water system, or if you end up with a monitoring violation if the correct sampling location is not clearly indicated. This is the time of year when EPA sends out the annual Monitoring and Reporting Requirements ("To Do" lists), along with a "schematic" of your water system. The schematic is an overly simplified, not-to-scale diagram of your water system. Instead of showing individual buildings and streets as your distribution system, it has a large pound sign or hash-tag, that looks like this #. There is also at least one red star and blue arrow indicating where a sample should be collected for Nitrate-Nitrite, other chemicals, and radionuclides (if required). In most cases, this is NOT the sampling point for total coliform, disinfection byproducts, lead or copper. There is a note on the schematic that says "Sample Points (SP) shown on the schematic are **ONLY** for Nitrates, RADs, IOCs, SOCs, and VOCs. If you sample for other contaminants, please refer to your individual Site Sampling or Monitoring Plans."

The following article discusses labeling requirements only for total coliform, nitrate-nitrite, and triggered Ground Water Rule. The information is applicable to all PWSs but there is no discussion on how to label samples for lead, copper, disinfection byproducts, chemicals, asbestos, radionuclides or any other parameters that may be required.

Nitrate/Nitrite Monitoring Location

If your system is required to sample for nitrate-nitrite per your monitoring and reporting requirements, the sampling point on the schematic is marked as SPxx (i.e., SP01 or SP04). The EPA database will only accept samples labeled in this manner for nitrate-nitrite, other chemicals, and radionuclides. The SPxx designation tells EPA that a water sample was collected AFTER any water treatment processes and BEFORE it got to the first consumer and is what we call "the entry point to the distribution system". Please note that you may have more than one sampling point for nitrate-nitrite due to the layout of your water system. Please use a certified lab of your choice to analyze the samples. It is the PWS' responsibility to make sure that the lab analyzing your samples for compliance is State or EPA certified for the specific analyte and method being requested. Make sure the sampling point (the SPxx number previously mentioned) is clearly noted on the lab's chain of custody or other form that is submitted with your samples. This will ensure that the sample result is accurately recorded in the EPA database as a sample for compliance. Without the correct sample name location, your PWS will get a monitoring violation.

Total Coliform Monitoring Location

Sample results for total coliform must be labeled with a sample location name that clearly indicates that it is in the distribution system, preferably with the letters "DIST" and according to your Revised Total Coliform Rule (RTCR) Sample Siting Plan. For example, "men's restroom-DIST" or "DIST 123 Main St." Total coliform samples must be collected within the distribution system where the water is used (not at the storage tank or well house). If you write on your sample bottle or laboratory chain of custody form that a total coliform sample was collected at SPxx the sample will be rejected and you will receive a failure to monitor violation.

Ground Water Rule (Source) Monitoring Locations

If your water source is a well or spring, you are required to collect a groundwater source sample at the well or spring if your PWS has a *routine* RTCR total coliform positive (TC+) result. Samples must be collected from all groundwater sources that were in use during the collection of the *routine* RTCR TC+ sample, and they must be analyzed for total coliforms and *E. coli*. If you have a surface water source this requirement does not apply to your PWS. If you purchase water from another system this requirement does not apply to you either. However, you must notify the PWS that you purchase water from, so that they can take their source water sample. Collect the source sample(s) at the groundwater source(s) (well or spring) BEFORE any treatment. If there is no sample tap on your well(s), you may collect the source sample from the faucet or tank inlet closest to the well. If your groundwater sources combine before treatment, you may take a combined source sample, but make sure to mark the sample location as "combined" and note the groundwater source facility codes that were combined (e.g., Combined WL01, WL02, and WL03). This sample must be labeled as the Triggered Monitoring Ground Water Rule sample (or "TG GWR" for short). You must indicate that it is a source sample, or collected from the well or spring so that we know it is not one of the required RTCR repeat samples from the distribution system. Remember: this sample is only required if you use

groundwater for your source water, and have a routine total coliform positive result.

What if SPxx and/or DIST and/or TG GWR are the same location?

What if your PWS does not have a way to collect a sample from the source (for the TG GWR), or from the entry point to the distribution system (for the SPxx for nitrate/nitrite)? Your first tap within the distribution system may be designated as the same sampling location for all three water samples, the TG GWR, the nitrate-nitrite, and the total coliform routine sample. If this is the case, you will need to remember to label each sample bottle differently according to the naming conventions described above. Even though the sample location is the same, the EPA database will not accept samples that are labeled improperly.

So if a nitrate-nitrite sample is labeled as being in the distribution system and says DIST, you will get a monitoring violation for failure to collect a nitrate sample. If the water sample from the same location is labeled as "TG GWR", and you intended it to be a routine total coliform sample, it will not be accepted as such, and you will get a monitoring violation for failure to collect a routine total coliform sample. If a total coliform sample is labeled as being from SPxx, you will get a monitoring violation for failure to collect a total coliform sample. Although it sounds confusing, if you print out your Monitoring and Reporting Requirements, and keep the form(s) with the correct facility code(s) and sample point code(s) with your sample bottles, then you can always refer to it for the proper way to label your samples. We also recommend keeping your RTCR

Sample Siting Plan close by so that you remember where to sample each month and the proper sample naming convention to write on your sample bottles and laboratory chain of custody as well.

If you do not have an agreement with your lab to send sample results, then please send ALL lab reports to R8DWU@EPA.GOV as soon as you receive them from the lab. You must include your public water system identification number (PWSID) and contaminant that was analyzed in the subject line. If you are unsure which of your monitoring requirements you have fulfilled already, please take a look at your water system on Drinking Water Watch https://sdwisr8.epa.gov/Region8DWWPUB/index.jsp). Simply type in your PWSID to search for your system. Click on your PWSID to bring up your water system profile. On the left hand side of the profile you will see an option to view the contaminants that were analyzed.

EPA Regulation	**Contaminant Analyzed**	**Physical Sample Location**	**Sample Site Name**
Nitrate-Nitrite Rule	Nitrate, Nitrite, or Nitrate-Nitrite	Entry point to the distribution system, after treatment*	Example: SP01, SP04
Revised Total Coliform Rule	Total Coliform and *E. coli*	Within the distribution system*	Example: DIST – Men's restroom, or DIST-123 Main Street
Ground Water Rule	*E. coli*	Directly from the well or spring, before treatment*	Example: TG GWR - source
* If the sample location is the same for all 3 regulations please collect your samples and label each bottle according to the naming convention above.			